

HUMAN MONOCLONAL ANTIBODIES TO EPIDERMAL GROWTH FACTOR RECEPTOR

ABSTRACT

In accordance with the present invention, there are provided fully human
5 monoclonal antibodies against human epidermal growth factor receptor (EGF-r).
Nucleotide sequences encoding and amino acid sequences comprising heavy and light
chain immunoglobulin molecules, particularly sequences corresponding to contiguous
heavy and light chain sequences from CDR1 through CDR3, are provided. Hybridomas
expressing such immunoglobulin molecules and monoclonal antibodies are also provided.

10 Also provided in accordance with the invention are antibodies that possess one or more of
the following functional characteristics: (i) inhibit tyrosine phosphorylation of EGF-r,
(ii) do not inhibit EGF-r internalization, (ii) inhibit EGF-r degradation, (iii) inhibition of
EGF induced EGF-r degradation, (iv) protect threonine phosphorylation of EGF-r, (v)
15 protect threonine phosphorylation of other molecules, particularly a 62 KD molecule
identified by immunoprecipitation, and (vi) inhibit vascular endothelial cell growth factor
signal by tumor cells by greater than 50% and endothelial cells by greater than 40%
relative to control.